# Third Annual Report on the Status of the Certificate of Mastery Study Committee

Presented to the House and Senate Education Committees

by

Roberta "Bobbie" May, President State Board of Education

and

Dr. Terry Bergeson
Superintendent of Public Instruction

January 16, 2003

**DATE:** January 16, 2003

**TO:** Members, House Education Committee

Members, Senate Education Committee

**FROM:** Roberta "Bobbie" May, President

State Board of Education

Dr. Terry Bergeson

Superintendent of Public Instruction

**RE**: 3<sup>rd</sup> Annual Report on the Status of the Certificate of Mastery Study

Committee of the State Board of Education

We are pleased to present this third annual and first joint report to the legislative education committees on the work to date of the State Board of Education's Certificate of Mastery (COM) Study Committee and the State Superintendent's Office. This report is a self-imposed requirement under State Board rule adopted in January 2000.

The efforts of the committee and Superintendent Bergeson's office continue to be vital components of the state's ongoing education reform effort. The work is substantive, hard, demanding, and worthy of continued legislative support. This report is one means by which the State Board of Education and Superintendent of Public Instruction are keeping the Legislature informed of the progress of the committee and agency initiatives related to the COM.

If you have questions or need additional information, please do not hesitate to contact either of us, or Larry Davis, the State Board's Executive Director, at (360) 725-6025, (360)-586-2357 (FAX), <a href="mailto:ldavis@ospi.wednet.edu">ldavis@ospi.wednet.edu</a>, or Bob Butts, Director, Policy and Partnerships, OSPI, at (360) 725-6020, (360) 753-6754 (FAX), <a href="mailto:bbutts@ospi.wednet.edu">bbutts@ospi.wednet.edu</a>.

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# **EXECUTIVE SUMMARY**

The work of the State Board of Education's Certificate of Mastery Study Committee is difficult, controversial, and ongoing. So, too, is the related work being done through Superintendent Bergeson's office.

The recommendations from this committee to the full state Board, the final recommendations of the State Board, and the ultimate decisions of the Legislature will stand as truly significant policy actions. If the Certificate of Mastery remains a state graduation requirement, that decision most likely will be subject to court challenge. The final decision will profoundly affect the lives of every student, every educator, every business, and every family in the state. Therefore, this work and the actions that result deserve the significant amounts of time and financial resources required to do it right. We firmly believe that the Washington education system is doing it right and this fact needs to be acknowledged and supported.

What has the Certificate of Mastery Study Committee learned? Among the learnings are that at the state level there are concerns and questions about the number of EALRs and scoring of the WASL assessment. Likewise, there are differences in the understanding, awareness, and readiness of our state's schools to support the Certificate of Mastery as a graduation requirement. While the State Superintendent's office has experts working on the EALRs and WASL assessment issues, the COM Study Committee has assigned a significant portion of its work to the development and distribution of a credible survey instrument to elicit information from 16 different subgroups of the education system about implementation of state reforms in our schools. This survey will yield a reasonable picture of where the system is in providing opportunities to learn for our students. It is intended that the survey be repeated over time. While students will be held accountable for demonstrating their learning, we do not want our students to bear the burden of accountability for the system.

As we enter the second decade of reform, the following items are due for timely review:

- The Essential Academic Learning Requirements need to be reviewed, especially as to which ones are absolutely "essential".
- The performance cut-score on the WASL also needs to be reviewed and compared to other accepted indicators of student achievement.
- The scoring model used for the WASL needs to be reviewed before adopting a "one size fits all" model.

Most importantly, we need to be confident that WASL scores are sufficiently valid and reliable for the purpose of meeting the statutory Certificate of Mastery graduation requirement. A formal report on the technical validity and reliability of

the WASLs is expected from the Superintendent's national Technical Advisory Committee (TAC) by March, 2003.

Three issues stand out as "make or break" issues in connecting the Certificate of Mastery to graduation via the WASL assessments:

- 1) Re-take opportunities. These must be available in sufficient time before the COM becomes a requirement and to implement incentives.
- 2) <u>Appeals process.</u> There must be a process for students to appeal their denial of a COM. Criteria and a process for appeals needs to be in place.
- 3) Resources for curriculum alignment, teacher development, and remediation. The system needs ongoing resources to continue the reforms and restructuring required by our performance-based system.

In addition, the definition of Certificate of Mastery needs to be determined for students with special needs and for those who for one reason or another cannot and will not be able to achieve the COM through the current WASL assessments.

Incentives for doing well on the high school WASL assessments, before the COM becomes a graduation requirement, are important for evaluating the assessments. Superintendent Bergeson and State Board members are talking with members of the higher education community, business community, scholarship grantors, and others to explore possible incentives.

Validity and reliability findings of the Technical Advisory Committee; readiness of the system; review of some of the initial work on standards and scoring; legal issues of retakes, appeals, and resources; alternate assessments; and incentives for taking the high school WASL – all of these issues have relevance and are part of or related to the work of the Certificate of Mastery Committee, in cooperation with the Office of Superintendent of Public Instruction.

# **BACKGROUND**

In 1993, the Legislature passed the Improvement of Student Achievement Act (E2SHB 1209). The law states, in part:

"After a determination is made by the state board of education that the high school assessment system has been implemented and that it is sufficiently reliable and valid, successful completion of the high school assessment shall lead to a certificate of mastery. The certificate of mastery shall be obtained by most students at about the age of sixteen, and is evidence that the student has successfully mastered the essential academic learning requirements during his or her educational career. The certificate of mastery shall be required for graduation but shall not be the only requirement for graduation."

# RCW 28A.655.060(3)(c)

In 1997, the Commission on Student Learning submitted to the legislative education committees a report developed by the Commission's Certificate of Mastery Ad Hoc Committee, entitled: Recommendations on the Washington Certificate of Mastery. The report recommended formal implementation of the Certificate of Mastery (COM) beginning with the graduating Class of 2006. (Copies available upon request to the OSPI Policy and Partnerships Office.)

In 1999, legislation was introduced that would have established in law that the COM be formally required for graduation beginning with the graduating Class of 2008. The bill did not pass. However, as a result of dialogue with key legislators, the State Board indicated that it could and would use its rule-making authority to set a target effective date for the Certificate of Mastery.

In January 2000, the State Board of Education adopted a rule establishing 2008 as the target, inaugural graduating class that will have to possess the COM in order to graduate, in addition to satisfying all other state and local graduation requirements. (**Attachment A**, WAC 180-51-063). At the same time, the Board created the COM Study Committee. (**Attachment B**, WAC 180-51-064).

The COM Committee members were appointed in late May 2000 by then State Board President Linda Carpenter. (**Attachment C**, membership). State Board member Gary Gainer was appointed as the committee chair. Mr. Gainer chose in October 2002 not to seek another term on the State Board. However, with the support of the Board and agreement by Mr. Gainer, current Board President Bobbie May asked him to continue to serve as chair of the COM Study Committee until it sunsets in May 2003.

Between June and October 2000, the COM Study Committee established a mission, work goals, and timeline:

## **Committee Mission**

Examine and make recommendations to the State Board of Education on validity and reliability issues and conduct a review and analysis of the requirement that students obtain a certificate (of mastery) as a condition for high school graduation.

# **Committee Work Goals**

- 1. Make a recommendation to the State Board of Education about the validity and reliability of the secondary Washington Assessment of Student Learning (WASL).
- 2. Make recommendations to the State Board of Education regarding an evaluation of the readiness of the system to support the secondary WASL as a graduation requirement.
- 3. Make recommendations to the State Board of Education regarding what to do for students who do not and cannot pass the secondary WASL.

# **Committee Timeline**

The committee's final date for submitting findings and recommendations to the State Board is May 2003. The State Board has set a date of not later than mid-2004 to make its declaratory determination.



# **THE YEAR AHEAD: 2003**

The State Board's commitment to its statutory charge continues to be reflected in supporting its COM Study Committee, which is engaged in a responsible study.

### STATUS OF COMMITTEE WORK STRANDS

<u>Committee Work: Strand #1:</u> Make a recommendation to the State Board of Education about the validity and reliability of the secondary Washington Assessments of Student Learning (WASL).

Validity is the extent to which an assessment/test measures what it is supposed to measure, as well as the extent to which inferences and actions based on the assessment/test scores are appropriate and accurate. [NOTE: Validity has different connotations for different types of assessments/tests. Different kinds of validity evidence are appropriate for each. Example: Content validity is a question of the match and balance between the test items (i.e., the questions) and the course content (i.e., the EALRs being assessed.)

Reliability is the degree to which the results of an assessment are dependable (i.e., relatively free from random errors of measurement) and consistently measure particular student knowledge and/or skills. Reliability defines the extent to which standard errors of measurement are absent from a measurement instrument. Reliability is usually expressed in the form of a reliability coefficient (or as the standard error of measurement derived from it). The higher the reliability coefficient the better, because this means there are smaller random errors in the scores. A test (or a set of test scores) with a reliability of 1.00 would have a standard error of zero and thus be perfectly reliable. No test is perfectly reliable. The judgment about reliability is whether the scores are sufficiently reliable given the context (e.g., if retake opportunities are available). An unreliable assessment cannot be valid. An invalid assessment can be reliable; however, it provides no useful information.

The COM Study Committee will review data and analyses relating to the technical validity and reliability of the scores on the high school WASLs, prepared by the State Superintendent's assessment staff, as well as the national TAC that advises Superintendent Bergeson. The committee expects a formal report from the national TAC no later than February or March 2003.

As of the date of this report, Dr. Catherine Taylor, University of Washington professor and consultant to the Office of Superintendent of Public Instruction on assessment issues, has shared with the COM Study Committee the following professional viewpoint. Based on the technical information derived from the technical reports for the WASLs (see Attachment D), and based on the condition that students have the opportunity to retake the Washington Assessments of Student Learning:

Ш	reading and mathematics.
	There is sufficient evidence to support the reliability of the WASL scores in writing.
	Beginning in 2003, the WASL listening test will have more than twice as many items (i.e., questions) as in previous years (18 rather than 8). Using standard procedures for estimating the reliability of scores for a test of 18 items, it is estimated that the reliability of the WASL listening test scores will be .77 to .87 (out of 1.0). This correlation range brings the WASL listening scores up to a level of sufficient reliability.
	There is substantial evidence to support the validity of the WASL scores in reading, writing, mathematics, and listening – both in terms of the match of the test items to the EALRs, and in terms of the solid relationship between the WASL scores and scores on the lowa Test of Educational Development (ITED).

<u>Committee Work: Strand #2:</u> Make recommendations to the State Board of Education regarding an evaluation of the readiness of the system to support the secondary WASL as a graduation requirement.

The State Board is grateful to the Legislature for the \$100,000 it appropriated in the 2001-03 operating budget to support the work of the COM Study Committee. In October 2001, the State Board entered into a contract with Educational Service District No. 101 (Spokane) to support the work of the committee. ESD 101 in turn hired Mr. Geoff Praeger to carry out the work identified in the contract. (Copy of contract available upon request to the State Board Office in Olympia.)

Mr. Praeger retired in June 2001 after a thirty year career as a school district assessment director: 12 years for the Spokane School District and 18 years for the Central Valley School District. His education background includes a degree in Curriculum and Assessment from Gonzaga University. He served as a member of Dr. Bergeson's <a href="state">state</a> Technical Advisory Committee and participates in meetings of the national TAC.

As stipulated in the contract between the State Board and ESD 101, the primary focus of Mr. Praeger's work is to, "Develop a method of data collection to determine at points in time on an on-going basis the level of readiness of Washington State's K-12 educational system to provide students the opportunity to learn that which is necessary to meet state standards for a Certificate of Mastery and consequent high school graduation."

Mr. Praeger's chosen approach, supported by the State Board and the COM Study Committee, was to develop a series of surveys, the express purpose of which is to: "Assess the readiness of Washington's K-12 system to implement a Certificate of Mastery requirement considering the extent to which students have had the opportunity to learn the expected content and skills. A further purpose is to identify those areas when a gap between current conditions and "sufficient" conditions exists."

Mr. Praeger worked with the COM Study Committee (the committee was given draft questions which were discussed, refined, and new ones suggested), members of the national TAC (who provided technical counsel on how to phrase some of the questions), a nationally recognized assessment expert (who provided technical counsel), professional educators, focus groups, and the State Board in developing the surveys. A total of sixteen (16) surveys were developed for the following targeted groups:

5<sup>th</sup> Grade Students (took 4<sup>th</sup> grade WASL prior Spring) 8<sup>th</sup> Grade Students (took 7<sup>th</sup> grade WASL prior Spring) 11<sup>th</sup> Grade Students (took 10<sup>th</sup> grade WASL prior Spring)

Elementary School Teachers
Middle School Teachers

# **High School Teachers**

Elementary School Principals
Middle School Principals
High School Principals

Parents Counselors

District assessment coordinators
District curriculum directors
District level special education directors
Superintendents
School Board presidents

These groups have different roles in education and carry different perspectives as a result. Consequently, the surveys are not exactly the same, but there are similar questions relating to common topics, such as: reading, writing, listening, math, curriculum alignment with the EALRs, use of assessment results for instructional planning, resources, staff training, reinstruction and remediation opportunities, reporting of results to students and parents, awareness of the COM as a graduation requirement, coordination of curriculum, instruction, and assessment.

Surveys were sent to 84 districts spread across the following enrollment categories: 1-499, 500-1999, 2000-4999, 5000-9999, 10,000-19999, and 20000 and above. Surveys were sent to approximately 5000 students at each of the designated grade levels, over 3000 teachers, 300 principals at each level, 4000 parents, and all school district superintendents, curriculum directors, special education directors, assessment coordinators, and school board presidents.

The results of the surveys are expected to be available in January 2003 and no later than February 2003. The survey results will provide **one** source of information about system provided opportunities-to-learn for students.

Each of the surveys listed above can be found on the State Board web site at <a href="https://www.sbe.wa.gov">www.sbe.wa.gov</a>. (Click on "Grad Requirements" in the subject menu; then scroll down to "Opportunity to Learn Survey for Participating Districts.")

Additional opportunity-to-learn work, especially related to legal issues, is being done by the national TAC. That work will not be completed before the COM Study Committee sunsets in May 2003. Accordingly, the committee will not be in a position to make a definitive recommendation to the State Board on Strand #2. At its discretion, the committee might consider putting forward a conditional recommendation to the State Board on Strand #2. It is the Board's expectation that the work by Superintendent Bergeson's office and the national TAC on opportunity-to-learn issues will be completed in time for consideration by the State Board prior to its mid-2004 decision deadline.

<u>Committee Work: Strand #3:</u> Make recommendations to the State Board of Education regarding what to do for students who do not and cannot pass the secondary WASL.

The State Board of Education, the COM Study Committee, and the Superintendent of Public Instruction acknowledge the view held by many that the WASL may not be the most effective means for every student to demonstrate that s/he has learned the EALRs. Pursuant to federal law, Washington State already has had to develop an alternative assessment to the WASL for a limited number of students with special needs.

One issue is unequivocally clear to the COM Study Committee, the State Board of Education, and Superintendent Bergeson: Retake opportunities must be provided to students who do not pass one or more of the high school Washington Assessments of Student Learning on their first attempt. Some courts have declared the expectation of a high school diploma following twelve years of school attendance to be a property right [Debra P. v. Turlington, 644 F.2d 397 (5<sup>th</sup> Cir. 1981); GI Forum v. Texas Education Agency, 87 F.Supp.2d 667 (W.D. Texas 2000)]. Therefore, it cannot be denied without due process. At its core, due process is a matter of being fair and just, rather than arbitrary, in the decision to deny the issuance of the diploma.

Retake opportunities on high-stakes tests are a fundamental issue of fairness and just treatment. [GI Forum v. Texas Education Agency, 87 F.Supp.2d 667]. The GI Forum case also indicates that offering remediation opportunities prior to retaking the assessment is critical to meeting due process and discrimination "tests." The link between assessment results and subsequent remediation or reinstruction is recognized in Washington State law under RCW 28A.655.030(3)(b)(ii). If the state does not provide funding to support retakes of the high school WASLs that are required to meet the COM graduation requirement, the State Board of Education will not be able to find the high school WASL scores sufficiently valid and reliable for the purpose of meeting the COM graduation requirement.

Similar to Strand #2, the committee recognizes that there is work underway in the State Superintendent's Office that will not culminate in advance of the committee's report in May 2003. The State Board acknowledges the State Superintendent's announced plan for making/seeking adjustments to, or related to, the WASL system as follows (numbered for reference purposes for the "Perspectives" comments)[full excerpted text included in **Attachment E**]:

1. Convene a broad-based panel to review and, if needed, reset the performance standards [i.e., cut scores] on the 10<sup>th</sup>-grade WASL.

<u>Perspective (1):</u> Public education in Washington continues to mature under the ongoing implementation of the standards-based, performance-demonstrated

system launched in 1993. The system is no longer in the same place it started. Consequently, it is important that various elements of the enterprise be periodically reviewed to determine if any changes are warranted. Ten years into the journey now, it is appropriate to review the performance standard cut-scores. The cut-score review should encompass a discussion of matching the cut-scores to "real time" expectations. The discussion should account for the distinction between the theoretical nature of cut-scores (data-based cut-score thresholds are still an educated guess about the achievement level at which all students should be able to perform) and the public's standard about the achievement level at which all students should be able to perform (i.e., traditionally "captured" in the letter grade system of labeling performance). The State Board supports
Superintendent Bergeson's proposal.

2. Proposed modification of the WASL scoring for purposes of graduation.

Perspective (2): Superintendent Bergeson is studying possibly changing the WASL scoring model. Any change should be done with the understanding that it is not lowering the performance expectations for students. The study is worthy of support for the fact that every student is the sum of their academic and intellectual parts. None of us is equally gifted in every subject. It stands to reason and fairness that the scoring system should appropriately account for this fact. The State Board supports Superintendent Bergeson's proposal.

3. Fund a minimum of four retake opportunities for all or any part of the WASL.

<u>Perspective (3):</u> Providing retake opportunities is not an option. It must be done, beginning as soon as possible. <u>The State Board supports Superintendent Bergeson's proposal.</u>

- 4. Create viable options for students with disabilities who cannot meet the standards because of their cognitive functioning.
- Commission a team for second-language learners who need more time and support to learn English and achieve core competencies in writing and mathematics before they can pass the WASL.
- 6. Provide an assessment alternative for students who fail all or any part of the WASL and believe they can demonstrate their skills through another venue.

<u>Perspective (4-6):</u> Expressed previously, each of us is uniquely the sum of our parts. The goal should be to hold firm on performance expectations and requirements and provide, on the one hand, as needed, performance allowances for students who may be differently-abled and provide, on the other hand, as needed, another option or options for those students who can demonstrate they know and can apply the EALRs by a means other than the WASLs.

Consideration must also be given to creating an appeals process. The form this may take in Washington needs to be explored. <u>The State Board supports</u> <u>Superintendent Bergeson's proposals.</u>

7. Create positive incentives for students to give their best effort on the WASL.

<u>Perspective (7):</u> Until the COM becomes a formal state graduation requirement, positive incentives likely will have a greater influence on encouraging and supporting students to do their best on the high school WASLs. Incentives need to be crafted to convey to students that each WASL is simply a tool, a means to the end of enabling them to graduate high school prepared to be successful in their next steps. <u>The State Board supports Superintendent Bergeson's proposal.</u>

As of the date of this annual report, it is not clear if the seven elements listed above will be completed by the time the State Board must render its mid-2004 judgment. It is possible (not necessarily probable) the Board could issue conditional recommendations in 2004, pending the completion of work under way.

The final meetings of the COM Study Committee are scheduled in 2003 on: January 24<sup>th</sup>, February 20<sup>th</sup>, March 27<sup>th</sup>, and May 8<sup>th</sup>.

Looking beyond the sunset date of the COM Study Committee, important work still remains in front of the State Board of Education and the Superintendent of Public Instruction. Toward that end, staff from both agencies has jointly developed for adoption/endorsement consideration/action by both agencies the following work-in-progress work plan:

		2003-2006 COM Work Plan	
No.	Issue	Agency/ies Authority	
1	COM implementation (i.e., definition of what Student Learning Goals/EALRs subjects are included on the COM)	SBE: RCW 28A.230.090 (This cite inherently grants the SBE the authority to set effective dates for grad-ation requirements.)  Legislature: Constitution	Current SBE ru  Graduating Cla  Reading  Writing  Math  Listening  Graduating Cla  Science
		The State Board intends to make a validity and reliability decision for reading, mathematics, writing, and listening by June 2004. Currently, it has a committee that will report to the State Board in May 2003 regarding the reliability and validity of the scores for these WASLs.	Social Studies: Required for gr of the COM gra become an end diploma/transcr consultation with  Arts, Health and Required for gr endorsements be determined Legislature,

WASL		2003-2006 COM Work Plan	
No.	Issue	Agency/ies Authority	
2	<b>EALRs review.</b> The content area EALRs should be reviewed to clarify learning expectations for all students, clarify which EALRs can and are being assessed, and clarify, as needed, which EALRs should be prioritized for assessment.	SPI: RCW 28A.655.060(3)(b)(v) RCW 28A.655.070(1)(2)	SPI has beguteviewing the (MCREL, Mic Education La a draft report expected in e
			A group will r week of Janu MCREL finding directions for the EALRs by recommendar
			The revisions

/COM Work Plan Agency/ies	
Authority	
Authority  SPI: RCW 28A.655.030(1)(b) RCW 28A.655.900(1)  A+ Commission: RCW 28A.655.030(1)(b)  SBE: RCW 28A.230.090  The statutes are not clear in establishing a single agency with responsibility. An Assistant Attorney General has offered a perspective that the laws provide a basis to point to any of the three agencies listed as	Not known, g the statutes. conducted as should be cor of 2003.
	RCW 28A.655.030(1)(b) RCW 28A.655.900(1)  A+ Commission: RCW 28A.655.030(1)(b)  SBE: RCW 28A.230.090  The statutes are not clear in establishing a single agency with responsibility. An Assistant Attorney General has offered a perspective that the laws provide a basis to point to any of the three

	2003-2006 WASL/COM Work Plan		
No.	Issue	Agency/ies Authority	
4			SPI has begut completed by The cut-score undertaken in already begu
		<u>A+ Commission:</u> RCW 28A.655.030(1)(b) <b>(?)</b>	undertaken i
		SBE: RCW 28A.230.090 <b>(?)</b>	
		The statutes are not clear in identifying which entity has the authority to shift the WASL scoring model if that is a resulting recommendation from the OSPI study.	

		2003-2006 WASL/COM Work Plan	
No.	Issue	Agency/ies Authority	
5	WASL retake opportunities.	SPI: for the administration of retake opportunities.	Retakes nee soon as impo attached to r
		Legislature: for the funding of retake opportunities.	For graduation opportunities later than Fa
		At least four retake opportunities need to be funded. (See # 11, too.)	If four-year under the second of the high sof 2006, retains as a control of the second of the high sof 2006, retains a second of the high se
			For noting st performance high school t be funded be

	2003-2006 WASL/COM Work Plan		
No.	Issue	Agency/ies Authority	
6	Alternative means to demonstrate mastery. The WASL may not be the best means for all students to demonstrate that they know and can apply the EALRs and earn the COM. There needs to be an alternative or some alternatives to the WASLs for students to demonstrate that they have the skills and knowledge to meet the standards.  The significant challenge is to identify what process and evidence should be used to make these determinations. (Possibilities that have been identified include ideas such as: the submission of a portfolio of work, using SAT or ACT results, considering GPAs, using statedeveloped or approved end-of-course exams.)	SPI: RCW 28A.655.030(3)(b)(i) RCW 28A.655.070(3)	Alternative mastery need soon as important attached to me available of the sound is notified of the sound is notified of the sound is notified at a dmissions, and the sound is need to be available of the sound is not in the so

	2003-2006 WASL/COM Work Plan		
No.	Issue	Agency/ies Authority	
7	Assistance for students who do not initially meet standards. Prior court cases on high-stakes testing have held that assistance must be provided to students who do not initially meet the standards. This assistance clearly needs to be in place after the tenth grade, but should occur in earlier grades (e.g., after the 4 <sup>th</sup> and/or 7 <sup>th</sup> grade assessments; it is difficult after the tenth grade to remediate below-standard learning levels.)	No entity is specifically required to address the questions.  Potential entities include the Superintendent of Public Instruction and statewide education organizations (e.g., type of assistance and cost) and the Legislature (e.g., legal responsibility and funding).	Subject to fur begin and she the end of the legislative ses

		2003-2006 COM Work Plan	
No.	Issue	Agency/ies Authority	
8	Special education and English language learners. RCW 28A.28A.655. 060 (3)(c) states that obtaining a "certificate of mastery shall be required for graduation but shall not be the only requirement for graduation."	The statutes do not explicitly state which agency has the authority for these decisions.  It could be inferred that	No timeline excontracted will begin in expert in the sum of the su
	Decisions need to be made regarding graduation for special education students who do not have, and will not likely be able to obtain, the skills and knowledge to meet the standards and receive a regular diploma.	the <u>State Board of</u> <u>Education</u> has the authority under its overall responsibility for determining graduation requirements.	Decisions sho than Fall 2004 2008 will be r requirements
	Decisions need to be made regarding whether English Language Learners (ELL) will be able to graduate and receive a regular diploma without meeting the standards and, if not, what additional educational opportunities will be provided.	The <u>Legislature</u> may need to amend RCW 28A.28A.655.060 (3)(c).	

	2003-2006 WASL/COM Work Plan			
No.	Issue	Agency/ies Authority		
9	Possible credentials for students who meet other requirements, but not the state standards. Should a student who has met all other graduation requirements (e.g., credit requirements, culminating project, high school+ education plan, local district requirements), but has not met one or more of the standards to earn the COM, in spite of his/her best efforts, be given a document that acknowledges the student's accomplishments? (e.g., a "Local District" Diploma, a Certificate of Attendance). If so, what "weight" should be given these credentials by colleges/universities, the military, employers, and others? Should these credentials be provided only during a transition period?	The statutes do not explicitly state which agency has the authority for these decisions.  It could be inferred that the State Board of Education has the authority under its overall responsibility for determining graduation requirements.  The Legislature may need to amend RCW 28A.28A.655.060 (3)(c).	This decision to June 2004 students in the 2008 of the comeeting the students in the students and for applicable, by Education per reliability decisions.	

., 0111	2003-2006 WASL/COM Work Plan		
No.	Issue	Agency/ies Authority	
10	Other incentives to meet the standards. Incentives need to be put into place to encourage students' best efforts on the WASLs. Incentive possibilities include:		Many of thes established n
	Four-year college admission consideration (Recent studies indicate that the WASL results are a good predictor of first-year college success.)	HECB Ind. Universities/colleges	OSPI is purse taking the W
	Running Start admission consideration	Legislature SBCTC Ind. Cmty/Tech Colleges	If incentives a retakes oppo offered as so
	Community/Technical college course placement (Recent studies indicate a positive correlation between the WASL reading and writing scores and the language arts placement test results in the community college system.)	SBCTC Individual Cmty/Tech College	Efforts should the Washingt Student Coul leadership st
	Drivers license prior to the age 18	Legislature	identify, from perspective,
	Good student discount for car insurance	Insurance companies	have the great
	Promise Scholarships	Legislature	
	Other Scholarships	Numerous parties (e.g., Gates Foundation, service clubs, private organizations, etc.)	
	Employer/business incentives	Individual Businesses Partnership for Learning Washington Roundtable Assoc. Washington Business	

2003-2006 WASL/COM Work Plan			
No.	Issue	Agency/ies Authority	
11	Second chance opportunities. Some students will drop out of high school or leave without obtaining a COM. For these students, opportunities need to be available for them to earn a COM as an adult. Such opportunities could be provided through the Community College Adult High School Completion Programs or by providing adults an opportunity to take the assessments at regional (e.g., ESDs) or other testing centers.	Legislature: Provide funding for retakes at the community colleges or testing centers.  Community and Technical Colleges: Assistance and administration of retake opportunities.  ESDs/other testing centers: Assistance and administration of retake opportunities.	Fall 2008 and

	2003-2006		
	WASL/COM Work Plan		
No.	Issue	Agency/ies	
		Authority	
12	Technical assistance, collaboration, time for	Educators:	As soon as p
	students, and professional development for	□ Professional	
	schools and educators. To ensure that a large	development decisions;	
	percentage of students are able to meet the	□ Evaluations	
	standards will require the education system to be		_
	effective and efficient:	School Boards:	As soon as po
		□Professional	underway.
	☐ Teachers will have to be highly knowledgeable	development decisions;	
	and skilled;	☐ Curriculum, instruction,	
	☐ Schools must be well organized and led;	assessment policies	
	☐ Teaching and instructional materials must be	aligned;	
	aligned;	☐ Student learning	
	☐ Good diagnostic tools will need to be available	calendar	
	to identify student strengths and weaknesses;		
	☐ There must be sufficient time for students to	OSPI:	Continue.
	learn the required skills and knowledge.	Technical assistance	Continue.
	Whether current funding is adequate to	SBE:	Ongoing
	accomplish these goals, and the extent to which	Preparation and	Ongoing.
	further efficiencies can be achieved, needs to be	certification policies	
	explored further.		
		<u>Legislature:</u>	Ongoing.
		Funding	Crigonig.



# 2003-05 FUNDING REQUESTS

# State Board of Education [Attachment F]

The State Board of Education is deeply appreciative of Governor Locke providing \$150,000 in his proposed 2003-05 state operating budget to continue support for activities of and related to the COM Study Committee.

# Superintendent of Public Instruction

(Excerpt from Superintendent Bergeson's 2003-05 Operating Budget Request)

### Retakes

A committee of national assessment experts that provides advice to OSPI has recommended that after the initial WASL administration, high school students be provided <u>at least</u> four opportunities to meet standards. The expense of re-takes comes from the cost associated with more high school students taking the assessments during the regular spring administration and having to administer the assessments an additional time in the fall.

This request is based on phasing in re-takes, with the first non-spring re-take opportunity in fall 2005. In order to offer a fall 2005 re-take opportunity, OSPI must begin developing and piloting items in spring 2004. The total cost of retakes in the upcoming biennium, including additional item development and piloting, is \$1,177,554. (The annual cost with both a spring and fall administration is projected at \$803,000.)

### Alternative way to demonstrate mastery

National assessment experts warn that some students will not be able to meet standards for graduation on a traditional written assessment. They also tell us that there are alternative ways, that are sufficiently valid and reliable, for students to demonstrate that they have the required skills/knowledge, and that these "alternative assessments" can be operationalized.

As business and higher education begin attaching consequences or incentives to the WASL, an alternate way to demonstrate mastery must be in place for students in the 2004-05 school year after they take the WASL as 10<sup>th</sup> graders in 2003-04. Alternative assessments must be in place at the beginning of the 2006-07 school year for implementation of the Class of 2008 graduation requirement.

We are requesting \$75,000 in the first year of the biennium for a review of alternate assessment options and a design of one or more methods for assessing student knowledge and skills. Prior to the 2004 legislative session,

OSPI will be requesting the Legislature for funds, based on the assessment design, to implement the alternative assessments in the 2004-2005 school year.

# **THE YEAR BEHIND: 2002**

The COM Study Committee has met 15 times since its creation:

**2000** – June 30, September 28, November 28

**<u>2001</u>** – January 30, March 20, May 1, October 1, November 27

**2002** – February 19, April 23, May 21, August 15, September 19, October 17, November 19.

Minutes of <u>most</u> of the committee's meetings are available on the website of the State Board of Education (<u>www.sbe.wa.gov</u>).

The 2002 committee meetings continued to provide opportunities for the committee members to expand their knowledge and understanding of assessment issues through a variety of presentations and dialogues; including conversations with two members of Superintendent Bergeson's national TAC –

William Mehrens (retired Michigan State University professor of
counseling, educational psychology and special education, and past
President of the National Council on Measurement in Education, and the
Association for Measurement and Evaluation in Guidance); and

Joseph Ryan (Director of the Research Consulting Center at Arizona State
University West, and teacher of research and statistics courses in the
Colleges of Education and Arts and Sciences.

The committee also had an opportunity to engage in a conversation with W. James Popham, professor emeritus of U.C.L.A., where he taught measurement and instruction courses for 29 years, is a past President of the American Educational Research Association, and the 2002 recipient of the National Council on Measurement in Education Award for Career Contributions to Educational Measurement.

Some of the learning lessons/outcomes from the meetings included:

Retakes are important to test reliability because retakes help confirm, one
way or the other, whether random error of measurement came into play the
first time the test was taken.

With respect to test validity, it can be inferred that the WASL is measuring the Essential Academic Learning Requirements (EALRs), but the question is whether they are the right EALRs and if the performance standard cut-score is the right standard.
It is time to review the cut-scores as a matter of practice. Cut-score decisions can/might increase the reliability of the decision the State Board needs to make about the relationship of the high school WASL/COM for graduation.
It is possible to legally defend, successfully, a high stakes test that is scored mostly on a conjunctive model (i.e., have to pass all parts of the assessmentthe current WASL approach). It depends on where the cutscore is established. If the cut-score well exceeds bottom performance, it is a much more stringent proposition to defend.
Dr. Mehrens shared his preference for a compensatory scoring model and offered the notion of considering using the current cut-score standard as the cumulative performance standard under a blended scoring approach.
The quality of alternate assessments will be a challenge. Alternate assessments will not be as psychometrically sound as regular assessments in the traditional sense. In developing alternate assessment options, key considerations include:
<ul> <li>Evidence that the evaluators were trained to evaluate alternate assessment data.</li> <li>Evidence that the evaluators are competent to evaluate alternate assessment data.</li> <li>Interrater reliability (i.e. two raters/evaluators of the same alternate assessment data will come to same or closely similar conclusions).</li> <li>Audit system to periodically, on-demand, review information to see if it matches up with rater/evaluator decisions.</li> </ul>
Incentives need to be useful to students (and families) and what might be an incentive for one student may mean nothing for another student.
Incentives ideas need to be shared with students for their feedback and they need an opportunity to share their ideas for incentives that will connect with students.
The North Thurston School District offered retakes on the WASLs to any 11 <sup>th</sup> grade student who failed to meet standard on one or more of the tests the preceding Spring. Students mentioned the following reasons why they might choose to retest:
□ Personal challenge

	Hope that meeting standard will help in future goals
	Encouragement from parents, teachers, friends, or others
	Students in North Thurston schools receive an award label for each WASL on which they meet standard. They also receive a graduation honor cord for meeting standard in all four areas.
(conv Admi Natio Assoc Octob	National Commission on Instructionally Supportive Assessment ened by five national associations: American Association of School nistrators, National Association of Elementary School Principals, nal Association of Secondary School Principals, National Education ciation, and National Middle School Association), issued a report in per 2001, entitled, "Building Tests To Support Instruction and cuntability: A Guide for Policymakers." The following nine guidelines from

1. A state's content standards must be prioritized to support effective instruction and assessment.

the report were shared with the committee at its August 15, 2002 meeting:

- 2. A state's high-priority content standards must be clearly and thoroughly described so that the knowledge and skills students need to demonstrate competence are evident.
- The results of a state's assessment of high-priority content standards should be reported standard-by-standard for each student, school, and district.
- 4. The state must provide educators with optional classroom assessment procedures that can measure students' progress in attaining content standards not assessed by state tests.
- 5. A state must monitor the breadth of the curriculum to ensure that instructional attention is give to all content standards and subject areas, including those that are not assessed by state tests.
- 6. A state must ensure that all students have the opportunity to demonstrate their achievement of state standards; consequently, it must provide welldesigned assessments appropriate for a broad range of students, with accommodations and alternate methods of assessment available for students who need them.
- 7. A state must generally allow test developers a minimum of three years to produce statewide tests that satisfy *Standards for Educational and Psychological Testing* and similar test-quality guidelines.
- 8. A state must ensure that educators receive professional development focused on how to optimize children's learning based on the results of instructionally supportive assessments.

9. A state should secure evidence that supports the ongoing improvement of its state assessments to ensure those assessments are (a) appropriate for the accountability purposes for which they are used, (b) appropriate for determining whether students have attained state standards, (c) appropriate for enhancing instruction, and (d) not the cause of negative consequences.

In addition to the committee meetings, update opportunities were afforded by the House and Senate Education Committees on January 16, 2002. Additional update reports were presented to the House Education Committee on May 9<sup>th</sup> and December 4<sup>th</sup>, 2002.



# **CLOSING COMMENTS**

The task of determining the sufficient validity and reliability of the high school WASL to meet the COM graduation requirement is substantive, tough, and challenging. The Legislature's policy decision in 1993 to link the COM to the high school diploma remains no less significant today. This particular element of the ongoing implementation of a performance-based education system is critical to the state's education reform effort. It is especially important on behalf of the students, parents, educators, public, and legislators of Washington.

We commend the Legislature for the thoughtful patience it has exhibited thus far. The most important action you can take during the 2003 legislative session is to continue that patience and trust in the process. Your concerns are ours, too. The final decision on the COM graduation requirement is yours. We recognize that fact. Our hope is that your decision is based on quality information and the combined efforts of the State Board and the State Superintendent. Toward that end, we believe the system deserves continued time to further evolve and that is what we ask of you as this particularly challenging session begins. Let the system continue to evolve.

The State Board of Education, the COM Study Committee, and Superintendent Bergeson are committed to keeping legislators and interested parties informed of their continuing COM related work. One way is to maintain the State Board's email distribution list to all legislators to receive notices of meetings of the COM Study Committee. Another is to request or respond to requests for presentations to the House and Senate education and fiscal committees. Information is also available on the respective websites of the State Board and Superintendent of Public Instruction.

A copy of this report is on the State Board of Education website: www.sbe.wa.gov

# **ATTACHMENT A**

WAC 180-51-063 Certificate of mastery -- High school graduation requirement -- Effective date. (1) Pursuant to RCW <u>28A.655.060</u> (3)(c):

- (a) The certificate of mastery shall be a graduation requirement, but not the only requirement for graduation from high school; and
- (b) The state board of education is responsible for determining when the secondary Washington assessment of student learning has been implemented and is sufficiently valid and reliable.
- (2)(a) The state board of education establishes the 2007-08 school year as the first year in which graduating high school students shall be required to have attained the state certificate of mastery in order to graduate, in addition to other state and local graduation requirements.
- (b) The state board of education fully recognizes that a higher standard of validity and reliability must be applied when the result of the assessment affects the ability of an individual student to receive a high school diploma. Therefore, the state board of education will continue to monitor the high school level Washington assessment of student learning. If the board finds that the assessment is lacking in this higher level of validity or reliability, or both, by the beginning of the 2004-05 school year, the state board may change the effective date of the certificate of mastery, for state graduation purposes, to a later school year.
- (c) Beginning the 2007-08 school year, the certificate of mastery shall consist of the subject areas under the student learning goals for which a Washington assessment of student learning secondary assessment has been implemented and declared valid and reliable for graduation purposes. It is expected that the initial certificate of mastery will be comprised of reading, writing, communications, and mathematics.
- (d) Beginning the 2009-10 school year, the certificate of mastery shall include science if a Washington assessment of student learning secondary assessment has been implemented and declared valid and reliable for this subject area.
- (e) As determined by the state board of education, in consultation with the legislature and the academic achievement and accountability commission, successful completion of the Washington assessment of student learning secondary assessment in social studies may be required to achieve the certificate of mastery or may lead to an endorsement on the high school transcript.
- (f) As determined by the state board of education, in consultation with the legislature and the academic achievement and accountability commission, successful completion of the Washington assessment of student learning secondary assessment in arts and health and fitness may lead to an endorsement on the high school transcript.

- (g) Effective with students who begin the ninth grade in 2003 (the graduating class of 2007), students who take the secondary Washington assessment of student learning and earn the certificate of mastery and/or meet the standard, attainment of the state certificate of mastery and/or meeting the standard shall be noted on the student's transcript pursuant to WAC 180-57-070.
- (3) Notwithstanding WAC <u>180-18-055</u> and <u>180-51-107</u>, subsection (2) of this section shall not be waived.
- (4) The certificate of mastery shall not be a graduation requirement for students who receive home-based instruction under RCW <u>28A.200.101(3)</u> nor for students attending private schools under RCW <u>28A.195.010(6)</u>.

# **ATTACHMENT B**

- WAC 180-51-064 Certificate of mastery -- Validity and reliability study. (1) The state board of education recognizes that a state investment in activities to verify the validity and reliability of the secondary Washington assessment of student learning for graduation purposes is critical. Therefore, the state board will work with the legislature to establish funding support for validity and reliability substantiation activities.
- (2) The state board recognizes that there remain unanswered questions about the certificate of mastery. In order to facilitate the necessary dialogue to address the questions and issues, the board will establish a certificate of mastery validity and reliability advisory committee. At a minimum, the advisory committee shall include representatives from the academic achievement and accountability commission, the office of superintendent of public instruction, the public, the business community, and education stakeholder groups.
- (3) The advisory committee shall examine and make recommendations to the state board of education on validity and reliability issues and conduct a review and analysis of the requirement that students obtain a certificate as a condition for high school graduation.
- (4) The advisory committee shall submit to the state board a final report and recommendations not later than the board's meeting in May 2003.
- (5) By the second Monday of January 2001, and no later than the second Monday of each year thereafter, the state board of education will provide to the house of representatives and senate committees on education, a progress report on the deliberations of the certificate of mastery validity and reliability advisory committee. The state board will submit any proposed policy change based on recommendations of the advisory committee to the house of representatives and senate education committees for review and comment before the change is implemented by the state board under its rule-making authority.

# **ATTACHMENT C**

SBE CERTIFICATE OF MASTERY STUDY COMMITTEE		
NAME	NAME	
Brossoit, Nick; Superintendent Tumwater School District	Moore, Bill; Research Manager Student Outcomes, SBCTC	
Clausen, Barbara Washington Assoc. of School Administrators	Mullin, Steve; <u>Vice President</u> Washington Roundtable	
Densley, Terry; School Director Wilbur School District	Perkins, Christie; Public Policy Chair Wa State Special Education Coalition	
Fielding, Lynn; School Director Kennewick School District	Pruitt, Wes; Policy and Research Team Workforce Training and Education Coordinating Board	
Frank, Phyllis Bunker; Member State Board of Education	Raichle, Patricia; <u>Director</u> Learning & Education Policy Center, WEA	
Frazer, Marc; Manager Ed. Policy & Contributions, Wash. Mutual	Sather, Marv; <u>Teacher</u> Riverside School District	
Gainer, Gary; Chair, COM Study Committee (just retired SBE member)	Selby, Dr. Gay; Vice Chair Higher Education Coordinating Board	
Hall, Greg; Assistant Superintendent Assessment & Research, OSPI	Severson, Laura Jo; President Washington School Counselor Association Counselor, SeaTac Occupational Skills Ctr.	
Hurtado, Denny; Indian Education, OSPI Tribal Chair, Skokomish Tribe	Thompson, Chris; Executive Director A+ Commission	
Kipp, Gary; Assistant Superintendent Secondary Education, Evergreen Sch. Dis.	Wallace, Dennis; President Washington-Association for Career and Technical Education; Vocational Director, Yelm High School	
McMullen, Robert; <u>Director</u> High School Programs, AWSP	Wheeler, Andy; Region 1 Representative Washington Alternative Learning Assoc.	
Mohler, Carol; <u>Citizen</u>	Woldeit, Ron; Citizen (immediate former SBE member) State Board of Education	

# **ATTACHMENT D**

# Evidence for the Reliability and Validity of Scores from the Washington Assessment of Student Learning (WASL)

Presented to:

Washington Roundtable December 11, 2002

Catherine S. Taylor University of Washington

# Reliability and Validity of Scores: Common Sense and Psychometrics

# **Dictionary Definitions:**

Valid: logical or empirical truth

Reliable: dependable

# **Logical Truth**

Can we make an argument that this score truly is a measure of the knowledge, skills, and strategies we wanted to measure?

- 1. Building tests requires careful thinking about 'the game to be played'. The test developer must ask her/himself:
  - "What are the important skills, strategies, and concepts that define the subject to be tested?"
  - "What are the most appropriate ways to assess the knowledge, skills, and strategies?"

#### **Empirical Truth**

Can we show evidence that this this score truly is a measure of the knowledge, skills, and strategies we wanted to measure?

- 1. To gather empirical evidence, the test developer must ask him/herself:
  - "Do the scores mean what I think they mean? Would students perform the same way on other tests that measure the same or similar content?"
  - "Is there another possible explanation for scores? Is some phenomenon, other than knowledge, skills, and strategies in the subject area, affecting performance on the test?"

# Dependability

Can we show evidence that if I gave this or a similar test again, the student would get about the same score?

# POTENTIAL SOURCES OF EVIDENCE FOR THE VALIDITY OF TEST SCORES

There are several ways that test developers get evidence for validity of test scores:

- 1. <u>Content Validity Evidence</u>. Professional judgment about whether the content measured is appropriate and represents the range of what examinees should know and be able to do
- 2. <u>Construct Validity<sup>1</sup> Evidence</u>. Strong correlations (.70-.80) between scores from different tests that are supposed to be measuring the same or about the same content and skills<sup>2</sup>
- 3. <u>Construct Validity Evidence</u>. Moderately strong correlations (.50-.70) between scores from different tests that measure related content and skills (for example, reading comprehension and listening comprehension)
- 4. <u>Construct Validity Evidence</u>. Moderate correlations (.40-.60) between scores on tests intended to measure very different content and skills (writing and mathematics)
- 5. <u>Construct Validity Evidence</u>. Mathematical analysis of the *patterns of examinee performance* to see whether the abilities that 'cause' performance on tests measuring the same or similar skills result in similar performance from examinees (also called 'factor' analysis).

<sup>&</sup>lt;sup>1</sup> A *construct* is the definition we give to what we are testing – e.g., reading comprehension, mathematics problem solving, mathematics computation, writing skills. The construct validity question is, "Do we have sufficient evidence to believe that *scores* from this test really tell us whether students can comprehend what they read, can solve mathematics problems, understand scientific concepts, etc.?"

NOTE: In evaluating the numbers in the tables, keep the following in mind:
 □ Correlations can range from −1.00 to 1.00.
 □ A correlation of −1.00 indicates that total scores from one test reflect the opposite of total scores on a second test.
 □ A correlation of 1.00 indicates the total scores on two tests are the same or very nearly the same.

# **CONTENT VALIDITY EVIDENCE**

1.	Accepted strategies for obtaining professional judgment about whether the content measured is <i>appropriate</i> and <i>represents the range</i> of what examinees should know and be able to do.					
	<ul> <li>Check the item specifications to make certain they match the content standards (EALRs)</li> </ul>					
	<ul> <li>Check test specifications to make certain that they represent the range of knowledge and skills described in the content standards</li> </ul>					
	Check <i>items</i> and <i>scoring rules</i> (rubrics) to make certain items actually match the item specifications and measure the content standards; to make certain the scoring rules match the content standards.					
2.	All of these steps were taken in the multiple stages of development of WASL.					
3.	Reviewers were teachers guided by professional testing specialists					
4.	Additional external evaluation studies that have been done <sup>3</sup> :  evaluation of grade 10 mathematics WASL					
	evaluations of the reading, mathematics, and science EALRs					
5.	Additional evaluation to be done:					
	<ul> <li>evaluations of all EALRs, frameworks against standards for National Assessment of Educational Progress and objectives for Iowa Test of Basic Skills/Iowa Test of Educational Development.</li> </ul>					
6.	One step where WA state went beyond many states is in the public scrutiny of the state standards (EALRs) and revisions based on widespread public input					

<sup>&</sup>lt;sup>3</sup> Standard practice in test development

Examine correlations between scores from different tests that are supposed to be measuring the same or about the same content and skills

- If two tests are supposed to measure exactly the same content and skills (for example, two forms of the lowa Test of Educational Development [ITED]), the correlations should be very high (about .90)
- If two tests are supposed to measure similar knowledge and skills but also have differences in terms of the targeted knowledge and skills, the correlations should be *strong* but *not too high* (between .70 and .80)

# Scores from Grade 10 WASL Correlated with Norm-Referenced Test Scores

WASL Year	Content	Test Pair	Correlation
2001	Math	ITED <sup>4</sup> (spring grade 9) and WASL (spring grade 10)	.796
2001	Reading	ITED (spring grade 9) and WASL (spring grade 10)	.744

<sup>&</sup>lt;sup>4</sup> Iowa Test of Educational Development

Examine correlations among scores from tests that are supposed to be measuring *related* knowledge and skills (desirable correlations = .50 - .70)

Scores from Grade 10 WASL Correlated with Related WASL Tests

WASL Year	Test(s)	Correlation
1999	WASL Reading and WASL Listening	.649
1999	WASL Reading and WASL Writing	.646
2000	WASL Reading and WASL Listening	.652
2000	WASL Reading and WASL Writing	.693
2001	WASL Reading and WASL Listening	.634
2001	WASL Reading and WASL Writing	.725

Examine correlations among scores from tests that are supposed to be measuring *very different* knowledge and skills (expected correlations = .40 - .60)

# Scores from Grade 10 WASL and Norm Reference Tests

WASL Year	Test(s)	Correlation
2001	WASL Listening and WASL Writing (2001)	.536
2001	WASL Math and WASL Writing (2001)	.648
2001	WASL Math and WASL Reading (2001)	.733
2001	WASL Math and ITED Reading (2001)	.692
	ITED Math and ITED Reading (2000)	.741

# These results show:

A stronger than expected relationship between reading and mathematics scores within ITED, within WASL, and, sometimes, between WASL and ITED

A stronger than expected relationship between WASL mathematics scores and WASL writing

This required follow-up studies to investigate potential explanations for results:

- a) ITED and WASL demand reading (of words and numbers) in the mathematics tests
- b) WASL mathematics demands the skills that are demanded in a writing assessment

Mathematical analysis of the *patterns of examinee* performance (also called 'factor' analysis).

I. Each year strand scores for WASL reading and mathematics are analyzed using factor analysis

Consistent results each year:

- 1. Mathematics factor composed of scores from:
  - a) Number sense
  - b) Measurement
  - c) Geometric sense
  - d) Probability and statistics
  - e) Algebraic sense
  - f) Mathematical problem solving
  - g) Mathematical reasoning
  - h) Mathematical communication
- 2. Reading factor composed of scores from:
  - a) Main ideas and details of fiction
  - b) Analysis and interpretation of fiction
  - c) Critical thinking about fiction
  - d) Main ideas and details of nonfiction
  - e) Analysis and interpretation of nonfiction
  - f) Critical thinking about nonfiction
- 3. Writing factor composed of scores from:
  - a) Content, organization and style in writing
  - b) Writing Conventions

II. During 2001, one Grade 10 study was conducted looking at patterns of performance on subscores for ITED and WASL:

The analysis showed two underlying factors

- a) Language arts factor (WASL reading, listening, and writing strand scores, ITBS Literary and Vocabulary subtest scores required the same underlying knowledge and skills)
- b) Mathematics factor (WASL mathematics strand scores, ITBS Mathematics Quantitative subtest scores required the same underlying knowledge and skills)

The study provides evidence that supports the claim that Grade 10 WASL mathematics test measures mathematics and Grade 10 WASL reading, writing, and listening tests measure the language arts. While reading is needed in mathematics, it is not a reading test.

# **ADDITIONAL CONTENT VALIDITY STUDIES**<sup>5</sup>

- Study to review of the reading, mathematics and science EALRs (study being conducted by MCREL)
- 2. Study to examine match between WASL mathematics items and EALRs (study conducted by SRI)
- Study comparing the content of WASL mathematics and reading assessments with community college placement exams (study conducted by State Board of Community Colleges)
- 4. Study to examine the 'drift' of scaled scores over time (being conducted by UW)

Early results suggest that the score scale is *extremely* stable over time; students would earn the SAME scale score regardless of how scaling is done (i.e., a 400 is a 400 is a 400 regardless which year the test is administered)

- 5. Studies to examine validity of the strand scores (being conducted by UW)

  Early results suggest that scores could also be presented based on the thinking skills involved in mathematics (e.g., recall of simple rules, solving complex multi-step problems) or based on type of text read (i.e., informational vs. narrative)
- 6. Study to examine whether traits other than mathematics affect mathematics scores (studies conducted by UW):
  - Reading study shows that students with reading difficulties tend get their scores from items that have visual displays; students without reading difficulties get their scores from items that have verbal text; test is a balance of both
  - Math Communication study shows that students who have high scores on Content, Organization & Style (COS) tend to do better on open-ended mathematics items than students with low scores on COS especially when math items require mathematical responses that are *not* writing tasks (e.g., ranking of numbers, drawing graphs, drawing geometric figures, and other numeric and graphic representations).

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<sup>&</sup>lt;sup>5</sup> Separate reports available

#### ADDITIONAL CONSTRUCT VALIDITY STUDIES

- 7. Study to examine whether items function differentially for girls vs. boys or whites vs. non-whites (being conducted by UW):
  - Results to date suggest that girls and minorities tend to earn their scores from open-ended items; boys and whites from multiple-choice items (which may suggest that tests composed exclusively of multiple-choice items are biased in favor of whites and boys)
- 8. Study to examine whether WASL reading and mathematics scores predict college freshman GPA (being conducted by UW including data from UW, WSU, WWU, EWU, CWU):
  - Results to date indicate that WASL scores can predict freshman GPA as well or better than SAT scores

# **RELIABILITY OF SCORES**

Reliability refers to whether we can trust (depend up) the scores we get for students or whether there is the possibility of error in the scores.

- 1. Two critical issues in reliability: error in individual student scores and error in group scores
- 2. Error is assumed to be randomly positive or negative
- 3. Causes of error in assessment can be rater inconsistency, student carelessness, leaving items blank, having a bad day, copying others' work, guessing, and other *random* events.
- 4. Since error is randomly positive or negative, error for groups is smaller than error for individuals because +'s and -'s cancel each other out
- 5. Classical test theory measures of score error are estimates of the average error across all students
- 6. Item response theory measures of score error (psychometrics used in WASL) are identified for each scale score point.
- 7. Standard error of the mean is the estimate of error in group scores.
- 8. Standard error of measurement is the estimate of error in individual scores

# POSSIBLE SOURCES OF EVIDENCE FOR THE RELIABILITY OF SCORES

Ways that test developers get evidence for reliability of test scores for the individual student:

1.		r agreement at the item level. Check to make certain that s are interpreting scoring rules exactly the same way:
		Use 'validity papers' – papers that already have scores on them – to see of raters are drifting from the scoring rules
		Use 'back reads' – have an expert scorer randomly rescore papers
		Randomly re-score 5-10% of all student work to check for overall rater consistency
2.	_	r agreement at the total score level. Check to see if ents will get the same total score regardless of the rater.
		Rater error is likely to be random (if raters are well trained).
		Raters will sometimes give students higher scores than they should get and sometimes give students lower scores than they should get
		If error is minor and random, total scores for students should be about the same.
3.	resp	nal consistency. Statistically examine students' onses to items to see if students respond consistently ss items within a particular test
4	Toot	retest Cive students two nevallel test forms OP the

4. <u>Test-retest</u>. Give students two parallel test forms OR the same test at two different times. Correlate the students' two scores. High correlations suggest students would get the same score regardless of the test taken.

# <u>Rater Agreement – Part 1</u>: Check to make certain that raters are interpreting scoring rules exactly the same way

# Rater Agreement Grade 10

Year	Content Area	Percent Exact Agreement	Percent Adjacent + Exact Agreement
1999	Reading/Listening	74-97%	99-100%
	Mathematics	70-91%	96-100%
	Writing	84-86%	<b>1</b> 00%
2000	Reading/Listening	80-97%	98-100%
	Mathematics	90-99%	99-100%
	Writing	82-83%	<b>1</b> 00%
20016	Reading/Listening	79-95%	96-100%
	Mathematics	78-98%	98-100%
	Writing	60-71%	95-98%
2002	Writing	66-72% <sup>7</sup>	99%

<sup>&</sup>lt;sup>6</sup> Change in how rater agreement was computed: Prior to 2001, rater agreement was computed *including* all safeguards to monitor consistency of raters (random "read behinds" by scoring table leaders, random insertion of validity (pre-scored) papers, retraining of raters who drift from scoring rubrics). Beginning in 2001, rater agreement was computed without taking into account use of safeguards. Therefore, percent exact agreement in 2001 and 2002 underestimates rater agreement that influenced students' scores.

<sup>&</sup>lt;sup>7</sup> First year of teacher involvement in scoring

Rater Agreement – Part 2: Check to see if students will get the same total score regardless of the rater.

NOTE: In evaluating the numbers in the tables, keep the following in mind:

- □ Correlations can range from −1.00 to 1.00.
- □ A correlation of −1.00 indicates that total scores from two readers would be exactly the opposite.
- A correlation of 1.00 indicates the total scores students would earn from two scorers would be the same or very nearly the same.
- The closer the correlation between total scores from different readers is to 1.00, the better the reliability
- The more similar the means (average scores across all the students), the more likely that the students' first and second total scores were the same or nearly the same

1999 Grade 10 Correlations between and Means of Total Scores of First and Second Readings for Open-Ended Items by Test

		Mean of Scores from	Mean Scores of from
	Correlation	First Reading	Second reading
Listening/Reading	.97	16.24	16.03
Writing	.96	6.99	6.95
Mathematics	.98	16.85	16.85

2000 Grade 10 Correlations between and Means of Total Scores of First and Second Readings for Open-Ended Items by Test

		Mean of Scores from	Mean Scores of from
	Correlation	First Reading	Second reading
Listening/Reading	.99	18.22	18.06
Writing	.95	6.38	6.38
Mathematics	.99	15.41	15.39

2001<sup>8</sup> Grade 10 Correlations between and Means of Total Scores of First and Second Readings for Open-Ended Items by Test

		Mean of Scores from	Mean Scores of from
	Correlation	First Reading	Second reading
Listening/Reading	.99	15.15	15.07
Writing	.95	6.73	6.45
Mathematics	.99	11.26	11.25

<sup>&</sup>lt;sup>8</sup> change in how rater agreement was calculated (see previous page)

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<u>Internal consistency:</u> Statistically examine students' responses to items to see if students respond consistently across items within a particular test (Classical Test Theory method for estimating error)

1999 Grade 10 Reliability Estimates and Standard Error of Measurement for Scores on each WASL Test

2000 2	ide 10 Reliability Es	-4!4	and and E. C.		

Scores on each WASL Test

2001 Grade 10 Reliability Estimates and Standard Error of Measurement for				

Scores on each WASL Test

? Using Item Response Theory, the standard error at the cut score is 9.45				

# <u>ATTACHMENT E</u>

Excerpt from November 2002 State of Education Address by Superintendent of Public Instruction Terry Bergeson at the Annual Conference of the Washington State School Directors' Association (WSSDA)

My accountability as state superintendent, along with the State Board of Education, is to ensure that our state's assessments are of high quality and that they are scored fairly and consistently. I have done that and will have a technical review completed in January to validate our work.

OSPI just completed an in-depth study of the seventh- and tenth-grade mathematics WASL. The Stanford Research Institute analyzed the alignment of the test items to the Essential Learnings, the difficulty level of the test and the standards-setting procedures. The data suggests that the seventh-grade test is harder for seventh-graders than the 10<sup>th</sup> grade test is for 10<sup>th</sup> graders. We are fixing that as we speak. We received high marks for the standards-setting process we used from 1997-1999, but much has been learned since then. As we design the graduation requirement and prepare to add new assessments in grades 3-8 for the federal law, I am recommending that we convene a broad-based panel of well-respected educators and citizens to review and, if needed, reset our performance standards on the 10<sup>th</sup>-grade test, using the best practices available today. These standards would then be the driver of vertically-linked standards back down through the earlier grades.

Second, I am formally proposing today a modification of the WASL scoring for purposes of graduation. It is a win-win approach that lets us have it both ways. We can keep our high standards but still allow a student's strengths in one area, like reading, to offset a relative weakness in another, like writing or mathematics. This approach is similar to that used by the Scholastic Aptitude Test, the Graduate Record Examination and the G.E.D. and is sometimes referred to as a "blended" or "partially compensatory" model. It allows students to "bank" scores that fall in a pre-set range determined by the standard error of measurement. This provides an acceptable range of scores without lowering the standard. Students would then accumulate total points to earn the diploma. This would give students

some flexibility but would still hold schools and districts to our high standards. Colleges, universities and apprenticeship programs could still use the standards to set expectations and provide incentives for scholarships, entrance to college or dual credit programs.

Third, to make this – or any graduation requirement work, we must fund a minimum of four opportunities to retake all or any part of the WASL. My budget request begins to fund these retakes in the spring of 2004. This funding is a bottom line for our legal accountability as a state, as well as a responsibility to our kids. Along with retakes, districts must provide academic interventions for students needing support. I will recommend that districts develop accelerated learning plans for our current seventh-graders who do not meet standards in any area to prepare them for success in 2008.

Fourth, we must have viable options for students with disabilities who cannot meet these standards because of their cognitive functioning. Thousands of children with disabilities WILL be able to meet these standards. As per our federal law in special education, their Individual Education Program teams must exercise their professional judgment to prove an individual should be given an alternate assessment. I will commission a team of leaders in curriculum and special education to provide fair but rigorous guidelines to I.E.P. teams for this purpose and a way for OSPI to monitor the system to ensure that we do not underestimate the capabilities of students with disabilities.

I will commission a similar team for second-language learners who need more time and support to learn English and achieve core competencies in writing and mathematics before they can pass the WASL. I would also challenge the Immigration and Naturalization Service to allow Washington State to run a pilot program to help our immigrant students who want to be citizens earn their citizenship status in their local high schools. My dream is that these young people could become Washington high school graduates and U.S. citizens on the same day.

Fifth, I have developed a plan to provide an assessment alternative for students who have failed the WASL but believe they can demonstrate their skills through another venue. This would require skilled teachers to supervise the development and collection of student work and verify that the student did the work independently. In addition, a team of certified teacher evaluators would score the work to our state performance standards. This project will be complex and it will cost money, but it is doable and, ultimately, it will enhance the understanding of thousands of teachers' about our academic performance standards.

These five initiatives address the real issues about the WASL and should let us get on with the important work of building student skills in rigorous and relevant learning environments.

But many students will still need motivation to do their best work. A negative sanction like the loss of the diploma will not motivate many kids. They need positive incentives related to their next steps in life. This is where we need accountability and support from our community and technical colleges, our universities and the business community.

K-12 is not an end in itself. It is a preparation for life, for work, for future learning in our community and technical colleges and for our four-year universities. If our colleagues in higher education recognize K-12 standards and send the message to high school students that skills (as measured by their WASL scores) count for access to Running Start and other dual-credit programs, for Promise scholarships and as a part of admissions, students will come to them better prepared. And if Running Start is linked to skills on the WASL, high school teachers should be able to compete to provide the program for those students at the high school once they've supported their success.

Last year in this address, I called for an alignment of K-12 with higher education. I'm pleased to report this year that we are making strides toward this goal. The state's community and technical colleges, working in conjunction with OSPI, just concluded a study of the relationship between the WASL and community college placement tests, which will soon be released. Similarly, the state's four-year universities are also considering how to use WASL scores

as an option in their admissions process. The University of Washington admissions office studied WASL scores as a predictor of first-year college success and found it as good as the S.A.T. The Higher Education Coordinating Board will be studying these data and other issues to build a solid connection between K-12 achievement and post-secondary options. These actions, coupled with a restructured career guidance system, will support and motivate students and their families, will produce major changes in student performance and better graduation results.

# **ATTACHMENT F**

(Edited excerpt from State Board of Education 2003-05 Operating Budget Request)

# I. Short Description

The State Board has nine standing committees:

- ← Executive
- ← Legislative
- ← Communications
- ← Professional Development and Certification
- ← School Facilities and Boundaries
- ← Equity
- ← Remote and Necessary
- ← Rules Review

# Temporary committees are established on an as needed basis:

 Certificate of Mastery Study Committee (the only temporary committee at this time).

Certificate of Mastery Study Committee – This committee is responsible for researching information to enhance their ability to recommend to the Board if the 10<sup>th</sup> grade WASL is valid and reliable for graduation purposes. By law, the Certificate of Mastery shall be a graduation requirement, but not the only requirement for graduation from high school. The Board has established the 2007-08 school year as the first year in which graduating high school students shall be required to have attained the state Certificate of Mastery. If the Board finds by the beginning of the 2004 school year that the assessment is lacking in validity and reliability, it may change the effective date of the Certificate of Mastery. This committee currently contracts with a consultant for expertise and updated information regarding the determination of validity and reliability.

3. Object Detail	FY 2004	FY 2005	Total
Contracts (Certificate of Mastery Survey)	\$50,000	\$50,000	\$100,000